## **ABSTRACT**

Compounds suitable for treating multidrug resistance and methods for their preparation and use are disclosed. The compounds are represented by the following formula:

$$H \xrightarrow{A^{1} A^{2}} H$$

$$H \xrightarrow{N H} H$$

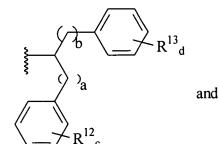
wherein:

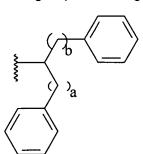
(a) A<sup>1</sup> and A<sup>2</sup> are each, independently, selected from the group consisting of a hydrogen atom and a group having the structure:

$$\begin{cases} \begin{pmatrix} R^1 \\ C \\ R^1 \end{pmatrix} D^1 - D^2 - R^2 \\ x \end{cases}$$

with the proviso that at A<sup>1</sup> and A<sup>2</sup> are not both hydrogen atoms, and wherein:

- (j) each R<sup>1</sup> is independently selected from the group consisting of a hydrogen atom and a hydroxyl group;
- (ii) x is 0 or 1;
- (iii) each R<sup>2</sup> is independently selected from the group consisting of:





wherein:

- (f) a is 2 to 10;
- (g) b is 2 to 10;
- (h) c is 1 to 3;
- (i) d is 1 to 3; and

- (j) R<sup>12</sup> and R<sup>13</sup> are each independently selected from the group consisting of hydrocarbon groups and substituted hydrocarbon groups; and
- (iv)  $D^1$  is -C(O)-; and,
- (v)  $D^2$  is -NH-; and
- (b) A<sup>3</sup> has the structure:

wherein:

- (j) each R<sup>1</sup> is independently selected from the group consisting of a hydrogen atom and a hydroxyl group;
- (ii) t is from 0 to 6;
- (iii)  $D^4$  is  $-CH(R^1)$ -;
- (iv) D<sup>5</sup> is -OR<sup>6</sup>; and
- (vi) R<sup>6</sup> is selected from the group consisting of a carbocyclic group, a substituted carbocyclic group, an aromatic group, and a substituted aromatic group.